

# **ATTACHMENT 1**

## **ACCEPTABLE WASTES**

# I. WASTE MANAGEMENT PROCEDURES

## 1.0 DESCRIPTION OF WASTE

### A. Acceptable Wastes

The medical waste processed at the facility is solid waste generated in healthcare or healthcare-related facilities, animal care, and research, pharmaceutical manufacturing and distribution facilities. The facility also processes special waste streams approved by the Division of Waste Management and Radiation Control.

Typical wastes include paper, plastic, cloth, diagnostic cultures, human and animal tissues generated by hospitals, nursing homes, clinics, and other medical, dental and veterinary facilities; and expired and unused pharmaceuticals.

Regulated medical waste is generally defined as any waste that can cause an infectious disease or that reasonably can be suspected of harboring human pathogenic organisms. It is also known as red bag waste, infectious waste, potentially infectious waste, biomedical waste, and biohazardous waste. Regulated medical waste includes single-use disposable items such as needles, syringes, gloves, and laboratory, surgical, emergency room and other supplies, which have been in contact with blood, blood products, bodily fluids, cultures or stocks of infectious agents.

The following wastes are acceptable at the Stericycle facility:

Wastes, including regulated medical wastes that are generated in the diagnosis, treatment, or immunization of humans or animals or related research, in the production/testing of biological materials (vaccines), and in the preparation and administration of chemotherapy waste, including waste defined by federal, state and local laws as medical, biohazardous, biomedical, infectious, and other wastes identified below:

- 1 Biohazardous waste including pathological waste:
- 2 Laboratory waste including:
  - Cultures – medical/pathological
  - Cultures/stocks of infectious agents – research and industrial
  - Vaccines and related waste generated in the production thereof

- Microbiologic specimens and related waste
- 3 Surgical specimens/tissues, contaminated animal parts, tissues, carcasses or body fluids
  - 4 Fluid blood/blood products, containers/equipment and exudates, secretions, body fluids including, but not limited to, isolation waste
  - 5 Sharps waste including, but not limited to:
    - Needles, syringes, blades, needles with attached tubing, disposable surgical instruments
    - Medical/laboratory glassware including slides, pipettes, blood tubes, blood vials, contaminated broken glass
  - 6 Other medical waste as required by the infection control staff, physician, veterinarian or local health officer to be isolated and handled as regulated medical waste.
  - 7 Trace-contaminated chemotherapy (antineoplastic/cytotoxic drugs) waste:
    - Gowns, gloves, masks, barriers, IV tubing, empty bags/bottles, needles and syringes, empty drug vials, spill kits, and other items generated in the preparation and administration of antineoplastic drugs
  - 8 Other Wastes:
    - Expired and unused pharmaceuticals
    - Confidential records / proprietary packaging and products
    - Contraband (e.g. police evidence)
    - Agriculture (APHIS) Waste, including Regulated Garbage from domestic and international sources
    - Outdated, off-specification or unused consumer commodities
    - Recalled or outdated disposable medical equipment or supplies
  - 9 Sharps and I.V. tubing and bags/bottles which are being discarded and are considered incidental to preparation and administration of the drugs.

- 10 Intravenous tubing, bags, bottles, vials and syringes used in chemotherapy preparation and administration that contain only residual amounts of antineoplastic drugs.
- 11 “Municipal solid waste” as defined by UAC R315-302-2 (46) contaminated with potentially infectious materials
- 12 Other non-hazardous waste as approved by the Division of Waste Management and Radiation Control.
- 13 Special wastes (as defined by UAC R315-302-2 include):
  - Furniture contaminated with potentially infectious materials
  - Infectious waste
  - Dead animals

B. Estimated Annual Quantities:

The maximum incineration capacity of the facility is 4,110 pounds per hour averaged. This estimated quantity accounts for up to two incinerators. The estimated annual maximum quantity of waste incinerated at the facility is approximately 18,000 tons per year.

C. Areas Served by Facility:

This facility serves the greater Salt Lake City area as well as the entire state of Utah. As part of Stericycle’s business network, this facility also services various markets throughout North America. The primary market served is Stericycle’s Western Regional system, including but not limited to the Pacific Coast and Intermountain States.

D. Non-conforming Waste:

Non-conforming waste will not be accepted for treatment and includes:

1. Chemical materials which are regulated as hazardous waste under RCRA or UAC Subsection 19-6-102 (10) and Section R315-2-3;
2. Complete human remains (e.g., that include head and/or torso), cadavers, and fetal remains; (Stericycle will not accept recognizable fetal remains);;
3. Compressed gas cylinders and canisters (including aerosol cans);
4. Radioactive materials (as outlined in Section 3);

5. Explosive materials;
6. Bulk cytotoxic materials;
7. Full or partially full I.V. bottles/bags and vials of chemotherapy agents that constitute a hazardous waste.

A copy of Stericycle's Waste Acceptance Protocol is provided as an attachment to this application.

Any waste that is outside of the bounds of approved wastes must go through prior authorization by the State.

E. Waste Tracking:

Stericycle, Inc. currently employs a tracking system in which waste containers are labeled with the generators' unique codes and tracked.

Containers of waste are labeled and entered into the waste tracking system. Containers are picked up from the customer and taken to Stericycle treatment and/or logistics centers where the waste is accordingly treated or forwarded for treatment. Waste that is disposed via incineration at Stericycle is received and entered into our tracking system as part of the incineration process, allowing tracking of waste from pickup at the generator to final treatment.

F. Waste Screening Procedures and Policies:

Waste acceptance, screening procedures and guidelines are outlined in Section III-*Waste Acceptance Protocol*.

## **2.0 WASTE HANDLING AND STORAGE**

A. Container Management:

1. Waste Receiving/Storage:

Typically, drivers load waste designated for management at Stericycle that is packaged at customers' facilities. Waste is transported to Stericycle's facility. Collection and transport vehicles arriving at the facility are directed either to an unloading dock or to a holding area. When directed or scheduled, vehicles are moved from the holding area to the unloading docks.

Waste received will be disposed within 30 days from the day of pickup as listed on the shipping manifest.

If infectious waste is to be stored longer than seven days prior to processing, it must be stored at or below 40 degrees F (5 C).

Waste received may be determined by Stericycle management to be consolidated and/or shipped to other facilities based on capacity, costs, customer needs, company policy, and/or waste properties.

2. Requirements to control pests and disease vectors are outlined in Section XII.

#### B. Container Management Practices:

1. Container Flow in Management Area:

Incoming waste containers are removed from vehicles onto the dock allowing adequate aisle space for workers to move about the receiving area and to allow for periodic cleaning.

Containers of waste for processing or transfer may be staged on the south dock, in the building, or on the truck. Containers may not be staged outside of these areas. Closed containers may be transferred from the processing area of the building for staging in the dry storage or other indoor areas of the building.

Waste received for treatment or transfer is weighed and screened for radiation, and the weight transfer and treatment is entered into the waste tracking system.

When non-conforming waste is encountered (e.g., waste labeled as hazardous waste, radioactive waste, compressed gas containers, containers of chemicals, or other non-conforming waste), the container of non-conforming waste is logged into the operating record as non-conforming waste and is taken to the non-conforming waste storage area where it awaits transport for further management elsewhere.

2. Container Handling:

Containers are loaded into the incinerator using loaders, forklifts, conveyors, and/or manually. Containers and/or lids may be washed out above the incinerator feed system, within a designated container wash area, or using a container wash system.

An operator may mix the waste containers and materials fed into incinerator as needed to achieve BTU and/or operational parameters.

3. Decanting of Containers:

Containers and bags of waste may be decanted/consolidated into other containers (e.g., macro bins) for subsequent management either on site or at another facility following transport.

4. Reusable Containers

Rigid reusable containers are available to Stericycle customers as a means of reducing exposure to blood borne pathogens. Reusable containers reduce the risk from leaking, soiled and/or mis-packaged boxes. Reusable containers also reduce the risk of needle-stick and sharps-type injuries.

5. Disinfection of Reusable Containers

The reusable containers are disinfected after each use. Reusable containers are disinfected as outlined in 5.1, Section XII, Control of Disease Vectors.

6. Waste Containers

Various waste containers (of different kinds, sizes, and configurations) of reusable and disposable (incinerable) containers may be used at the facility that meet Federal DOT requirements under 49 CFR and which have been approved by Stericycle for use.

C. Removal of Liquids:

Liquids that are captured as part of the quenching and air quality control processes that are not placed into the quench tank will be placed into a holding tank. The contents of the holding tank are periodically pumped into a tanker truck to be hauled away off-site to an appropriate facility for water treatment and/or disposal. The on-site sanitary septic system is designed to accept wastewater from the employee bathroom/shower and office related facilities as well as wastewater from the tub wash process. The on-site sanitary septic system is under the jurisdiction of the Tooele County Health Department.

D. Waste Transportation:

Vehicles used to transport regulated medical waste shall comply with USDOT and applicable local transportation requirements. For personnel training requirements, see Section V.

E. Alternative Waste Handling or Disposal

A second, step-hearth incinerator similar to the first incinerator is planned for this facility. Once a second incinerator is approved for use at the facility along with the first, the incinerators may be used concurrently or alternatively. Using two incinerators is expected to reduce facility down time compared to a facility with one incinerator.

When the facility is not able to incinerate waste, during periods of outage and as needed to maintain compliance with applicable storage requirements, arrangements will be made for handling and disposal at other Stericycle locations or industry partners that are approved for such management, including arrangements for transport and delivery of waste for treatment to those facilities.

F. Litter Control / Spill Cleanup Plan

This plan applies to litter and waste-related spills from operations of the incinerator facility. Waste Handling

Waste handling and related activities are completed within the enclosed incinerator facility building. Consequently, litter or spillage of liquids is typically contained to the covered concrete floor of the facility within the enclosed structure.

Pickup and Cleanup Activities

Floor conditions will be monitored for litter and liquid spillage. If noted in sufficient quantities, the affected areas will undergo litter pickup or other necessary actions to sufficiently clean and/or disinfect the area. These activities will be performed on an as-needed basis as determined and directed by the facility manager or designee(s).

If the litter or liquid spillage meets the definition of a release as outlined in Section IX, protocols outlined in Section IX shall be followed.

## **ATTACHMENT 2**

### **ASH ANALYSIS PLAN**

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# ASH ANALYSIS PLAN



**Stericycle®**

Protecting People. Reducing Risk.™

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Attachment 1 Stericycle Regulated Medical Waste Acceptance Policy

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## 1.0 PURPOSE AND OVERVIEW

The purpose of this plan is to outline procedures and requirements, for the reestablishment of characterization of the bottom ash from Stericycle's Hospital Medical Infectious Waste Incinerator (HMIWI) located in North Salt Lake, Utah. This plan employs elements of the US EPA June 1995 Guidance for the Sampling and Analysis of Municipal Waste Combustion Ash for the Toxicity Characteristic, EPA530-R-95-036 (1995 EPA Guidance) and sampling protocols in Chapter 9 of Test Methods for Evaluating Solid Waste (SW-846). The state of Utah does not have specific regulations that apply to HMIWI, and consequently Stericycle draws on these Federal guidance documents, as well as its experience with medical waste incinerators located in multiple states that have more specific regulatory requirements, in creating this plan. This plan includes requirements for sampling, analysis, and related quality assurance/quality control (QA/QC) for determining hazardous waste characteristics and also outlines waste management requirements.

Stericycle has been operating a HMIWI in North Salt Lake, UT since 1989 and has been generating bottom ash since that time. Stericycle's bottom ash is a solid waste that is generated from the incineration of regulated medical waste from healthcare or healthcare-related facilities, and research, pharmaceutical manufacturing and distribution facilities. Based upon the experience at this and other Stericycle facilities, the bottom-ash waste stream is well understood and fairly homogeneous, as compared to that for municipal solid waste incinerators. Unlike municipal solid waste incinerators that could potentially accept exempt household hazardous waste, Stericycle has a Regulated Medical Waste Acceptance Policy<sup>1</sup> that is built into its contracts with its clients. Additionally, Stericycle provides regular training and informational material to generators to ensure proper policy adherence. The incineration process for medical wastes and the ash produced has not significantly changed since the initial operations in 1989. Additionally, many of the hazardous materials used in healthcare have been eliminated over time, such as cadmium-based bags and mercury containing instruments. Bottom ash management and testing has followed the permit conditions as they have been stated over time and since the last permit was issued in 2006.

An overview of the sampling scheme and sampling frequency in this plan is as follows:

- Samples will be collected as random composite samples of bottom ash from various positions and depths in a bottom-ash bin and analyzed for Toxicity Characteristic Leaching Procedure (TCLP) metals. The procedure for random sample collection is provided in Section 2.

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<sup>1</sup> See attached Stericycle Regulated Medical Waste Acceptance Policy.

- Four (4) initial<sup>2</sup> composite samples will be collected and analyzed from one bottom-ash bin during each of four (4) calendar quarters for the first year of sampling. The first sampling quarter will begin on the calendar month following the date on which Stericycle's revised solid waste permit is issued, as approved with changes related to bottom-ash sampling and this plan. Each subsequent quarter will cover a three (3) month interval with no gaps between months. During each quarterly sampling event, samples will be collected and a determination made regarding hazardous/non-hazardous waste characterization based on the analytical results of the composite samples collected within a calendar quarter in accordance with this plan. The first sampling quarter begins on the first day of the calendar month following the month wherein occurs the approval described in this section of this plan.
- Following the completion of four (4) consecutive quarters showing the waste is non-hazardous, sampling will continue on a semi-annual basis as outlined in this plan. If any semi-annual test indicates that a upper confidence interval exceeds the regulatory threshold, then Stericycle will revert back to quarterly testing until four consecutive quarters successfully indicate the ash is "non-hazardous".
- Hazardous/non-hazardous waste determinations will be made using SW-846 Chapter 9 guidance, the 1995 EPA guidance, and applicable hazardous waste determination rules, as outlined in this plan. At least every five (5) years, starting during the first calendar quarter of sampling, a sample will be analyzed for the full TCLP constituents, including the organic constituents<sup>3</sup>.

## 2.0 SAMPLE COLLECTION

The procedures for collecting bottom-ash samples are presented below.

Random sampling from a bin will be as follows: randomly generate a set of three numbers for each sample to be taken (1 through 4), to correspond with 64 (4 x 4 x 4) three-dimensional quadrants within the bottom ash in a bin. In the event that the same quadrant is identified more than once within the same bin by this randomly generated set of numbers, a separate sampling location within that identified quadrant should be selected for each sample taken, or another non-identical quadrant will be randomly generated for the location of that sample.

The initial quarterly bottom-ash samples will be collected as four (4) composite samples. Each composite sample will be created from four (4) randomly selected locations within a bottom ash bin using the random

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<sup>2</sup> Additional samples may be taken following initial or subsequent evaluation of calculated upper confidence intervals, as outlined later in this plan and in accordance with guidance for hazardous waste determinations outlined in SW-846.

<sup>3</sup> This full-list TCLP composite sample will be collected during one of the quarterly composite samples taken as part of a quarterly sampling event (but is only required to be collected once every five years).

sampling protocols described in the previous paragraph<sup>4</sup>. The four (4) initial samples each quarter will be analyzed for TCLP metals. During the first calendar quarter of sampling, and then once every five years, one of the four (4) initial samples will also be analyzed for the full TCLP constituents, including the organic constituents.

Clean, powder-free nitrile gloves will be worn by sampling personnel during sample collection. Each composite sample should be thoroughly mixed prior to sample material being placed into the final laboratory-supplied sample container(s). Larger pieces within the composite sample that have particle size<sup>5</sup> significantly greater than 9.5 mm may be reduced in particle size prior to completing the thorough mixing, and/or discarded. Such materials may be reduced by crushing, cutting, breaking, or grinding<sup>6</sup>. Tools, including mechanical tools (e.g., a mechanical crusher), may be used for particle-size reduction of such sample material.

Following mixing procedures (outlined above), samples should be placed directly into the laboratory-provided sampling containers. For TCLP metals analysis, each composite sample should fill an 8-ounce (or larger) jar. When full TCLP analysis is to be conducted<sup>7</sup>, two (or more) 8-ounce (or larger) jars will be filled. Containers specified by the laboratory for organic analyses will be utilized in accordance with laboratory instruction.

Collected samples will be shipped to the laboratory for analysis. Paperwork associated with sampling (i.e., chain-of-custody, custody seals, sample identification label, and shipping form<sup>8</sup>) should be prepared and available (i.e., obtained from the analytical laboratory) prior to each event. The samples will be packaged<sup>9</sup> for shipment, sealed with a custody seal, and either hand-delivered (local laboratory) or shipped overnight by a commercial carrier. The chain-of-custody record is required for tracing sample possession from time of collection to time of receipt at the laboratory. A chain-of-custody record will accompany each individual shipment of samples. A copy of the completed chain-of-custody form will be returned to Stericycle after the shipping container reaches its destination and/or will be provided to Stericycle with the data package.

### 3.0 ANALYTICAL PROCEDURES

The laboratory should have both National Environmental Laboratory Accreditation Program (NELAP) and Utah state certifications for all required analytes. Analyses will be performed in accordance with US EPA SW-846. The laboratory analytical documentation will, at a minimum, include the following information:

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<sup>4</sup> In other words, aliquots or sub-samples of bottom ash will be obtained from sixteen (16) randomly selected locations within the initial bin, and these 16 subsamples will be formed into four (4) composite samples.

<sup>5</sup> Based on visual inspection and sample-collector's estimation.

<sup>6</sup> See 1995 EPA Guidance, page 6, item 7.

<sup>7</sup> Or to further ensure adequate sample material is provided or available for laboratory analysis

<sup>8</sup> A shipment form is used if the samples are to be sent to the laboratory via a third-party delivery service.

<sup>9</sup> Preservatives for analysis of organics will be incorporated to samples as part of packaging as required by SW-846.

- Cover letter/Sample Information: Will include a brief description of the sample group<sup>10</sup> (number and type of samples, field and associated laboratory sample identification numbers, preparation and analytical methods used). The laboratory data reviewer should also include a statement about whether all holding times and Quality Control (QC) criteria were met, samples were received intact and properly preserved, with a brief discussion of any deviations potentially affecting data usability. This discussion includes, but is not limited to, test method deviation(s), holding time violations, out-of-control incidents occurring during the processing of QC or field samples and corrective actions taken, and repeated analyses and reasons for the re-analyses (including, for example, contamination, failing surrogate recoveries, matrix effects, or dilutions). Dilution factors, including the reasons for the dilution (if any) should be provided. The report cover letter will be signed by an authorized laboratory representative, signifying that all statements are true to the best of the reviewer's knowledge (except as noted). One letter is required for each sample group (or sub-group of samples, if the planned set of samples is not sent to the laboratory all at once).
- Original chain-of-custody form (or a faithful copy, electronic version, or facsimile of the original).
- Analytical results: Will be provided for all parameters for which the samples were requested to be analyzed.
- Blank Data: For the requested analyses, the laboratory will provide the results of any preparation or analytical blanks associated with the sample group.
- QC Summary: The laboratory will provide summary forms detailing laboratory QC sample results, which include individual recoveries and relative percent differences (if appropriate) for the following QA/QC criteria: surrogates, batch Matrix Spike (MS) analyses, batch Matrix Spike Duplicate (MSD) analyses, Laboratory Control Standard (LCS), and sample duplicate analyses. QC limits will also be reported; if any QC limits are exceeded, a flag or footnote will be placed to indicate the affected samples. A minimum Level 2 data package should be provided by the contract laboratory.

#### 4.0 QUALITY ASSURANCE AND QUALITY CONTROL PROGRAM

The assessment of blank analysis results will be in general accordance with US EPA guidance documents (US EPA 2014a and 2014b). No positive sample results will be relied upon unless the

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<sup>10</sup> The sample group may be a sub-group of the total set of samples to be collected.

concentration of the parameter in the sample exceeds five times the amount detected in a blank. If necessary, re-analysis or re-sampling<sup>11</sup> will be performed to confirm or refute suspect data.

Concentrations of any contaminants found in the blanks will be used to qualify the data following US EPA protocols. Any parameter detected in the sample, which was also detected above the reporting limit in any associated blank, will be qualified "B" when the sample concentration is less than five times the blank concentration. The "B" qualifier designates that the reported detection is considered to represent cross-contamination and that the reported constituent is not considered to be present in the sample at the reported concentration. If a result is "B" flagged and above the regulatory limit for any constituent as described below, re-sampling (of that composite sample) should occur.

Laboratory interference checks should be incorporated as part of the QA procedures. The QA procedures should include verification of the correct acidity for the leaching procedure to ensure representative analyses. The contract laboratory should ensure that the aliquot of leachate used for MS/MSD analysis is derived from the same leachate used for analysis of the primary sample. Laboratory control samples will be analyzed to verify that the analytical system meets method-specific criteria.

## 5.0 DATA EVALUATION AND WASTE MANAGEMENT

Following laboratory analysis, the data package will be provided to an independent data validator for evaluation of the package for QA/QC compliance. Following Level 2 validation of the data submitted, the independent data validator will provide a written narrative summarizing the validity of the data to Stericycle.

Following receipt of validation from the independent data validator of all of the initial, quarterly, composite sample results (and of subsequent sample results if additional samples are taken), upper confidence interval calculations will be determined for each parameter using the equation<sup>12</sup> in Chapter 9 of SW-846 (and in the 1995 EPA Guidance). These calculated upper confidence intervals will be compared to the regulatory thresholds for the associated TCLP parameter. The regulatory limits for the full TCLP list may be found at <http://www.epa.gov/superfund/programs/clp/download/som/som22nfg.pdf>.

If the upper limit of the confidence interval is less than the applicable regulatory threshold, the contaminant is not considered to be present in the waste at a hazardous concentration and the study is completed.

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<sup>11</sup> Re-sampling would be necessary when a result of a calculation of the upper confidence interval comes into question and the sample result is believed to be material or would make a difference in the associated waste-determination decision.

<sup>12</sup> The equation for the upper confidence interval:  $CI(\text{upper}) = \bar{X} + (t_{.20})(s_x)$ ; where  
 $t_{.20}$  is a t-value for a two-tailed confidence interval and a probability of 0.20;  
 $s_x$  is the standard error of sample, calculated as follows:  $s_x = s / (\sqrt{n})$ ; where  
 $n$  = the number of samples, and  
 $s$  = the sample standard deviation

If any of the calculated upper confidence interval values exceed the regulatory limits for any of the constituents (especially if the generator believes that the sample mean  $\bar{x}$  is greater than  $\mu$ , the population mean), additional sample results from the initial bottom-ash bin may be included into the upper confidence interval calculation<sup>13</sup>. The number of additional samples estimated to complete a quarterly sampling event may be derived by utilization of Equation<sup>14</sup> 8 in SW-846 and determining how many additional samples<sup>15</sup> to take. If it is determined that additional samples<sup>16</sup> are to be taken, the number of samples to be taken for a subsequent addition to a quarterly sampling event may exceed the number determined by utilization of Equation 8.

Stericycle will not ship the bottom ash waste bin from which the initial samples were taken, and subsequent bins generated, until the analytical results are reviewed to determine the characterization of the material. If the upper confidence interval for the initial bottom-ash bin is below the regulatory threshold for all TCLP metals, the corresponding bin and subsequent bottom ash bins prior to the next quarterly (or semi-annual) sample may be transported to a non-hazardous waste landfill for disposal.

If the initial upper confidence interval exceeds (is greater than) the regulatory threshold for one or more of the TCLP metals, additional random composite samples<sup>17</sup> from the corresponding bin may be analyzed and the hazardous/non-hazardous waste determination made using guidance from SW-846 Chapter 9 and the 1995 EPA Guidance. The results are pooled with the initial data set and the confidence limits are recalculated with the additional samples. Original data is not excluded from these calculations. After completion of all sampling and analysis of the initial bin in accordance with the applicable guidance, should the upper confidence interval for the quarterly sampling exceed the regulatory threshold for any of the TCLP constituents (metals), then all subsequent bins for the quarter (and any bins of waste prior to the next quarter's sampling) will be evaluated on a bin-by-bin basis. These subsequent bottom ash waste bins may be sampled on a bin-by-bin basis via a composite sample as outlined in this plan and if the result of any such sampled bin is less than the regulatory thresholds, then that specific bin of bottom ash waste may be sent for disposal as non-hazardous waste at a non-hazardous waste disposal facility. If any of the TCLP constituents analyzed from the composite sample exceed the regulatory threshold (RT) for any constituent, then the bin analyzed will be disposed of as a hazardous waste at a Subtitle C landfill.

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<sup>13</sup> It is recommended that the statistics also be run using analytical results for prior sampling events (but not using data prior to July 2015) to see if the upper confidence interval is less than the regulatory threshold.

<sup>14</sup> The equation for the number of samples is  $n = (t_{.20})^2 s^2 / \Delta^2$ , where  $t_{.20}$  is a t-value for a two-tailed confidence interval and a probability of 0.20;  $s$  is the standard deviation of a sample; and,  $\Delta$  is the difference between the regulatory threshold, RT, (e.g., 5.0 mg/L for TCLP lead) and the sample mean, often stated as  $\bar{X}$  or "x bar" with  $\Delta$  represented as the equation  $\Delta = RT - \bar{X}$ .

<sup>15</sup> The statistical mean for a specific analyte for the composite samples is calculated as follows:  $\bar{X} = \Sigma x / n$ , where:  $\bar{X}$  ("x bar") is the sample mean for a specific analyte,  $\Sigma x$  is the sum of all results for a specific analyte, and  $n$  is the total number of results for a specific sample event.

<sup>16</sup> See guidance in SW-846, Chapter 9 (page NINE-14, Item 9, as an example).

<sup>17</sup> Based on Equation 8, Chapter 9, SW-846, the appropriate number of samples to collect ( $n$ ) can be determined using the following equation:  $n = (t_{.20})^2 s^2 / \Delta^2$ , where  $t_{.20}$  is a t-value for a two-tailed confidence interval and a probability of 0.20;  $s$  is the standard deviation of a sample; and,  $\Delta$  is the difference between the regulatory threshold, RT, (e.g., 5.0 mg/L for TCLP lead) and the sample mean, often stated as  $\bar{X}$  or "x bar" with  $\Delta$  represented as the equation  $\Delta = RT - \bar{X}$ .

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## 6.0 REPORTING

The following will be submitted in a report to the Utah Division of Waste Management and Radiation Control (DWMRC) no later than forty five (45) days from the date of completion of collection of all of the samples from quarterly sampling and for all four (4) initial calendar quarters: the upper confidence interval calculated for each parameter, the underlying data points for each of the initial samples, and a copy of the written narrative from the independent data validator.

If additional samples are taken following the initial samples, a similar report will be submitted no later than forty five (45) days from the date of completion of each set of subsequent samples taken.

Stericycle will also notify the Utah Division of Waste Management and Radiation Control where there is a positive TCLP result (above the regulatory threshold) when bins are analyzed on a bin-by-bin basis. This notification to the Division will be made within seven (7) days of receiving a positive TCLP result from the laboratory.

## 7.0 RECORDKEEPING

Records, including laboratory analytical data and other pertinent paperwork pertaining to each sampling event, should be maintained in the facility's files for a period of no less than 3 years. Hard copies of reports will be submitted to the Utah DWMRC following evaluation of data as described above.

## 8.0 REFERENCES

US EPA. February 2007 (SW-846). SW-846 Methods for Evaluating Solid Waste, Physical/Chemical Methods, Final Update IVB. <http://www.epa.gov/osw/hazard/testmethods/sw846/online/index.htm>

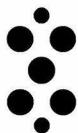
US EPA. 2014a. National Functional Guidelines for Inorganic Superfund Data Review, OSWER 9355.0-131), EPA 540/R-013-001. August 2014.  
<http://www.epa.gov/superfund/programs/clp/download/som/som22nfg.pdf>

US EPA, 2014b. National Functional Guidelines for Superfund Organic Methods Data Review Multi-Media, Multi-Concentration (OSWER 9355.0-132), EPA 540/R-014-002. August 2014.  
<http://www.epa.gov/superfund/programs/clp/download/ism/ism22nfg.pdf>

US EPA 1994. Sample Equipment Decontamination, SOP #2006, Rev. 0.0. August 1994.

US EPA 1995 (1995 EPA Guidance). Guidance for the Sampling and Analysis of Municipal Waste Combustion Ash for the Toxicity Characteristic - 530-R-95-036 - 1995

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## REGULATED MEDICAL WASTE ACCEPTANCE POLICY

Stericycle policy requires compliance with all applicable regulations regarding the collection, transportation and treatment of regulated medical waste. Federal Department of Transportation (DOT) Regulations require the generator of regulated medical waste to certify that the packaging and documentation of transported regulated medical waste complies with DOT regulations regarding waste classification, packaging, labeling and shipping documentation. To ensure that neither Stericycle nor the generator of regulated medical waste violates applicable regulations, it is imperative that all parties understand the rules regarding proper identification, classification, segregation and packaging of regulated medical waste. The purpose of this policy is to summarize the minimum requirements for preparing your medical waste for collection, transportation and treatment. Additional facility or state-specific waste acceptance policies may apply based on permit specifications. Please contact your local representative for further information. You may also call (866) 783-7422.

### REGULATED MEDICAL WASTE

Stericycle accepts medical waste generated in a broad range of medical, diagnostic, therapeutic and research activities. The term "medical waste" includes biohazardous, biomedical, infectious or regulated medical waste as defined under federal, state or local laws, rules, regulations and guidelines. Except as defined by specific state regulations, this **excludes** RCRA hazardous waste pharmaceuticals, all DEA scheduled drugs including \*controlled substances, bulk chemotherapy, waste containing mercury or other heavy metals, batteries of any type, cauterizers, non-infectious dental waste, chemicals such as solvents, reagents, corrosives or ignitable materials classified as hazardous waste under Federal and State EPA Regulations. In addition, Stericycle **cannot accept** bulk liquids, radioactive materials, or complete human remains (including heads, full torsos and fetuses). Stericycle **cannot accept** these excluded materials packaged as regulated medical waste. All lab wastes or materials which contain or have the potential to contain infectious substances arising from those agents listed under 42 CFR 72.3 are strictly prohibited from medical waste by federal law and must be pretreated prior to disposal. Separate protocol and packaging requirements apply for the disposal of non-hazardous pharmaceuticals. Hazardous waste transportation services may be offered in certain geographical locations, under separate contract. Please contact your local representative for details and packaging specifications.

\*Un-dispensed from DEA Registrant

### WASTE SEGREGATION AND PACKAGING

The generator is solely responsible for properly segregating, packaging and labeling of regulated medical waste. Proper segregation and packaging reduces the potential for accidental release of the contents and exposure to employees and the general public. DOT regulations require (49 CFR 173.197) that all packages of regulated medical waste be prepared for transport in containers meeting the following requirements: 1) rigid; 2) leak resistant; 3) impervious to moisture; 4) of sufficient strength to prevent tearing or bursting under normal conditions of use and handling; 5) sealed to prevent leakage during transport; and 6) puncture resistant for sharps. All regulated medical waste must be accompanied by a properly completed shipping document (See 49 CFR 172.202).

### MANAGEMENT OF NON-CONFORMING WASTE

As required by regulation and company policy, Stericycle employees may refuse containers that are non-conforming because of their contents or are improperly packaged, leaking, damaged or likely to create a risk of exposure to employees or the general public. Any non-conforming waste identified in route to or at a Stericycle location may be returned to the generator for proper packaging or disposal. Proper segregation and packaging is essential to ensure compliant and safe handling, collection, transportation and treatment of regulated medical waste.

## STERICYCLE REGULATED MEDICAL WASTE ACCEPTANCE POLICY CHECKLIST

ACCEPTED REGULATED MEDICAL WASTE
<ul style="list-style-type: none"> <li>• Sharps - Means any object contaminated with a pathogen or that may become contaminated with a pathogen through handling or during transportation and also capable of cutting or penetrating skin or a packaging material. Sharps includes needles, syringes, scalpels, broken glass, culture slides, culture dishes, broken capillary tubes, broken rigid plastic, and exposed ends of dental wires.</li> <li>• Regulated Medical Waste or Clinical Waste or (Bio) Medical Waste - Means a waste or reusable material derived from the medical treatment of an animal or human, which includes diagnosis and immunization, or from biomedical research, which includes the production and testing of biological products.</li> </ul>
ACCEPTED REGULATED MEDICAL WASTE WHICH MUST BE IDENTIFIED AND SEGREGATED FOR INCINERATION
<ul style="list-style-type: none"> <li>• Trace Chemotherapy Contaminated Waste - RCRA Empty drug vials, syringes and needles, spill kits, IV tubing and bags, contaminated gloves and gowns, and related materials as defined in applicable laws, rules, regulations or guidelines</li> <li>• Pathological Waste - Human or animal body parts, organs, tissues and surgical specimen (decanted of formaldehyde, formalin or other preservatives as required per hazardous waste rules).</li> <li>• Non-RCRA Pharmaceuticals - Must be characterized and certified as non-RCRA hazardous material by the generator. <b>Excludes</b> all DEA scheduled drugs, including controlled substances*</li> <li>• <b>California Only</b> - Solidified Suction Canisters - Suction canisters that have been injected with solidifier materials to control liquids or suction canisters made of high heat resistant plastics such as polysulfone</li> </ul>
REGULATED MEDICAL WASTE NOT ACCEPTED BY STERICYCLE
<ul style="list-style-type: none"> <li>• Untreated Category A Infectious Substances</li> <li>• RCRA Hazardous Pharmaceutical Waste and all DEA controlled drugs, including controlled substances*</li> <li>• Chemicals - Formaldehyde, formalin, acids, alcohol, waste oil, solvents, reagents, fixer developer</li> <li>• Hazardous Waste - Drums or other containers with a hazard warning symbol, batteries and other heavy metals</li> <li>• Radioactive Waste - Any container with a radioactivity level that exceeds regulatory or permitted limits; lead-containing materials</li> <li>• Complete Human Remains (including heads, full torsos, and fetuses)</li> <li>• Bulk Chemotherapy Waste</li> <li>• Compressed Gas Cylinders, Canisters, Inhalers and Aerosol Cans</li> <li>• Any Mercury Containing Material or Devices - Any mercury thermometers, Sphygmomanometers, lab or medical devices</li> <li>• Mercury-Containing Dental Waste - Non-contact and contact amalgam and products, chairside traps, amalgam sludge or vacuum pump filters, extracted teeth with mercury fillings and empty amalgam capsules</li> </ul>

\*Consult Stericycle Representative for specific requirements

Additional waste acceptance policies may apply based on state or permit specific requirements. Hazardous waste transportation services may be offered in certain geographical locations, under separate contract. Please refer to your local Stericycle Representative for additional information and options for possible hazardous waste handling. For additional information on container and labeling requirements contact our Stericycle Customer Service Department at (866) 783-7422.

## **ATTACHMENT 3**

### **WASTE TRACKING**

## **III. WASTE ACCEPTANCE PROTOCOL**

Stericycle's customer training on waste acceptance protocols includes person-to-person training, informational materials, and resources provided online (stericycle.com), which may include waste-acceptance information, a blog, and contact information for assistance to customers who have questions about waste acceptance and segregation.

### **1.0 WASTE ACCEPTED FOR TREATMENT**

Section I, Waste Management Procedures, lists wastes that are accepted for treatment.

### **2.0 NON-CONFORMING WASTE NOT ACCEPTED**

Prohibited waste is listed in Section I, Waste Management Procedures. Prohibited waste screening requirements are outlined below:

#### **2.1. Radioactive Waste:**

2.1.1. Prior to treatment, all containers will be screened using a radiation monitor. Any container with a radiation reading above 30-36  $\mu\text{R/hr}$  will be rejected from treatment.

2.1.2. If radiation is detected above 30-36  $\mu\text{R/hr}$ , the Radiation Screening Protocol will be followed. (See attached Radiation Screening Protocol.)

#### **2.2 Hazardous Waste:**

2.2.1 Hazardous waste, as defined under Utah Administrative Code (UAC) R315-301-2 (30), and PCBs, as defined UAC R315-301-2 (53), will be rejected from treatment and arrangements will be made to return the waste to the generator or forward it to a proper treatment, storage, and/or disposal facility.

Training requirements are outlined in Section V, Personnel Training, and include training on Waste Acceptance Protocol which includes identification of non-conforming waste (waste in hazardous waste containers, waste with hazardous waste labels, compressed gas cylinders, waste in containers with radioactive waste labels, containers of chemicals, etc.)

### **3.0 PACKAGING OF WASTE**

Waste containers must meet DOT standards and have a sealed, gasketed lid, or other container-closure device. Regulated medical waste received for treatment will be packaged in either reusable plastic containers, in single-use containers that can be incinerated, or other approved containers.

Sharps containers and Gaylord-style boxes may be received in groups (i.e., palletized). Containers are to meet DOT requirements and have a sealed, gasketed lid as required.

Containers that are leaking or damaged are rejected for further use, disinfected, and incinerated or may be shrink-wrapped and sent to an off-site facility for repair or processing. Spilled material will be appropriately cleaned as outlined in this plan.

#### **4.0 REUSABLE WASTE CONTAINERS**

Infection control requirements for reusable containers are outlined in Section XIII.

#### **5.0 WASTE TRACKING**

##### **5.1 System for Tracking Waste:**

Waste shipments received at the facility via a medical waste transporter must be accompanied by a shipping/tracking document (electronic or paper).

An electronic tracking system is used to record tracking data. For a description of waste tracking, see 1.0.E, Waste Tracking, in Section I, Waste Management Procedures.

A tracking system administrator addresses discrepancies within the electronic tracking system.

#### **6.0 MANAGEMENT OF NON-CONFORMING WASTE AT THE FACILITY**

Wastes that are non-conforming are rejected from treatment.

Procedures for non-conforming waste that inadvertently and/or unexpectedly arrives at the facility:

- The non-conforming waste is rejected from treatment by setting it aside and not placing it on the feed conveyor or processing into subsequent management (i.e., autoclaving at an off-site facility).
- Generator information from the non-conforming waste's container label is written into the log book as part of the operating record, along with the date, and the type of waste non-conformity.

- The facility manager (or designee) is informed about the non-conforming waste.
- The non-conforming waste is labeled in accordance with its non-conformity and the date.
- The non-conforming waste is taken to the non-conforming waste storage area.
- The generator or generator's representative is informed about the non-conforming waste and told that they are to make arrangements for the waste to be returned to them or sent to an appropriate waste management facility. They also are told to take measures to prevent non-conforming waste from being sent.
- Stericycle works with the generator to make these arrangements and ensure that the non-conforming waste is properly dispositioned.
- The disposition of the non-conforming waste is recorded in the operating record.

# **ATTACHMENT 4**

## **INSPECTIONS**

## IV. INSPECTION PROCEDURES

### 1.0 INTRODUCTION

Records of inspections shall be maintained in the site operating record as required. Inspection items may be performed and records kept as part of the plant maintenance, transportation, and/or safety programs.

Inspection forms when required will note the inspection date and the inspector's name or initials.

Deficiencies found that require corrective action will be noted. An inspection may also note other observations and/or recommendations for corrective action. If a repair is immediately correctable (such as by replacing a sign, or getting another fire extinguisher) the corrective action may be noted on the form. Corrections made prior to completing the inspection need not be noted as a deficiency. If an item is not applicable, it will be noted on the form along with the reason, if required.

As site conditions change, inspection procedures and items will change.

### 2.0 FREQUENCY OF INSPECTIONS

The following specifies the minimum frequency of inspection for each required item.

**2.1 Daily:** Daily inspections are not required to be recorded and may be performed by multiple personnel.

- Inspect loading and unloading areas
- Inspect liquid-waste tank system for leaks
- Inspect above ground-piping for leaks
- Inspect sumps and/or secondary containment
- Visually inspect incinerator temperature-monitoring instrumentation
- Inspect temperature settings of refrigerated trailers when in use

**2.2 Weekly**

- Perform a facility walk through of areas around the incinerator, container storage, and air-pollution control system.
- Inspect emergency eyewash and showers
- Inspect containers and related containment systems

### **2.3 Monthly**

- Check radiation screening system for proper operation
- Inspect fire extinguishers

### **2.4 Quarterly**

- Inspect perimeter lights, notice signs, and security fence
- Inspect spill kits
- Check operation of the HMIWI chart recorder
- Check calibration and operation of the weight scale system

### **2.5 Annual**

- Check calibration and operation of the radiation-monitoring system
- Check facility emergency signals and conduct an evacuation drill

## **3.0 AREAS OF INSPECTION**

Inspection criteria are noted in the table, below. The following outlines some of the items that will be checked during the inspections.

### **3.1 Containers**

Fly ash bags and waste containers are inspected for proper labeling and closure, cracks, tears, leaks, spills, and stacking stability.

### **3.2 Wastewater Storage Tank**

The wastewater tank receives wastewater from the facility processes.

### **3.3 Incinerator**

The inspection schedules for the incinerator are included in this section. See tables, below.

### **3.4 Sumps and Secondary Containment Areas**

The sumps are located under the incinerator, ash quench tank and in the storage area.

If a sump contains any material that would compromise its function, it will be cleared as needed to prevent overflow.

### 3.5 Other Areas

Safety and security inspections are made of the fence, locks, fire extinguishers, alarms, emergency eyewashes and showers.

## 4.0 CORRECTIVE ACTION

The status of items being inspected will be noted on the inspection logs. A blank will not be used to indicate an acceptable status. A work order number may be referenced as necessary if additional corrective-action work needs to be done. Corrective actions will be completed in a timely manner.

## 5.0 EXAMPLE INSPECTION MATRIX

The matrix contained in this section is only an example. The forms may be changed as site conditions change. Additionally, they may be electronic or exist in some other format.

Example Daily Inspection	
General	Suggested Inspection
Loaded refrigerated trailers	Operable, correct temperature
North loading/unloading area	Leaks, spills
South loading/unloading area	Leaks, spills
Sump under incinerator	Operational, free of obstructive material
Sump under bottom ash (quench tank)	Operational, free of obstructive material
<b>Incinerator Monitoring Instrumentation</b>	
Secondary Combustion Chamber Temperature	Good working order, recording properly
Primary Combustion Chamber Temperature	Good working order, out of tolerance, recording properly
Bag house	Good working order
Incinerator Temperature Chart Recorder	Good working order, out of tolerance, recording properly

Example Weekly Inspection	
Inspection Item	Suggested Inspection
<b>System Walk Through</b>	
Containers (reusable) in Process Area	Operational, good working order, proper labels, as applicable
Storage Area – Containers (fly ash)	Closed, bulging, leaking, proper placement, labels
Eyewashes	Operable
Showers	Operable

Example Monthly Inspection	
Inspection Item	Suggested Inspection Outcomes to be Indicated
Radiation Monitoring System	Operable
Fire Extinguishers	Tagged, charged, in-place, damage

Example Quarterly Inspection	
Inspection Item	Suggested Inspection Outcomes to be Indicated
<b>Safety and Security</b>	
Exterior Wall	Gate closed, no breach in exterior wall that would allow unauthorized entry
Warning Signs	Legible, visible and secured
Perimeter Lighting	All lights working
Spill Kits	Inspect and restore if necessary
<b>Instrumentation</b>	
HMIWI Chart Recorder	Operable
Weight Scale System	Calibrated and check Data Acquisition System (DAS) Signal

Example Annual Inspection	
Inspection Item	Suggested Inspection Outcomes to be Indicated
Radiation Monitoring System	Operable, calibrated
Evacuation Drill	Check alarms and for proper response



# Daily Inspection Log / Summary

Tooele County Incinerator Plant

The purpose of this Daily Inspection Log / Summary is to provide a daily record (log or summary) of observations of the facility related to malfunctions and deterioration, operator errors, and discharges which may cause or lead to the release of wastes to the environment or to a threat to human health.

The following areas are to be observed as part of this inspection:

- Loading   ● Unloading   ● Material Storage   ● Waste Storage   ● Waste Liquid Storage
- Sumps   ● Material Feed Systems   ● DAS & Instrumentation   ● Containers   ● Above-Ground Piping
- Fly Ash Collection & Storage Areas   ● Bottom Ash Collection & Storage Areas   ● Secondary Containment
- Continuous Emissions Monitoring System   ● Process and Residue Handling Systems   ● APC System

**OK Fix** Check/look for leaks, spills, cracks, tears, gaps, damage, proper operation and/or function, corrosion, erosion, integrity, proper labeling/closures, cleanliness, and stability

	Inspector Name (print)	Inspector Name (sign)	Date of Inspection / Time
	Inspector Name (print)	Inspector Name (sign)	Date of Inspection / Time
	Inspector Name (print)	Inspector Name (sign)	Date of Inspection / Time
	Inspector Name (print)	Inspector Name (sign)	Date of Inspection / Time
	Inspector Name (print)	Inspector Name (sign)	Date of Inspection / Time
	Inspector Name (print)	Inspector Name (sign)	Date of Inspection / Time
	Inspector Name (print)	Inspector Name (sign)	Date of Inspection / Time

Applicable additional notation for items marked "Fix" above. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

(Note if additional work needs to be done. Use additional pages, if necessary.)



# Monthly / Quarterly Inspection

Tooele County Incinerator Plant

The following areas are to be observed as part of this inspection:

- Exits      ● Fire Extinguishers    ● Eye Wash Stations    ● Emergency Showers    ● First Aid Cabinets
- Alarms     ● Spill Kits

Note: If problems are found, the equipment is tagged out of service and a requisition is placed with maintenance for immediate repair. All equipment will be maintained as necessary to assure its proper operation in time of emergency.

**OK Fix** Check/look for \_\_\_\_\_ clear/unobstructed exits, \_\_\_\_\_ properly marked exits and lighting, \_\_\_\_\_ area around first aid stations and fire extinguishers clear and accessible, \_\_\_\_\_ extinguishers properly marked / charged / inspected, \_\_\_\_\_ first aid cabinet properly stocked , \_\_\_\_\_ spill kits present and properly stocked

Inspector Name (print)	Inspector Name (sign)	Date of Inspection / Time
Inspector Name (print)	Inspector Name (sign)	Date of Inspection / Time
Inspector Name (print)	Inspector Name (sign)	Date of Inspection / Time

**OK Fix** Inspection Instructions (what to inspect & acceptable criteria)

- \_\_\_ \_\_\_ Perimeter lights, notice signs, and security fence: Visually inspect for presence, integrity
- \_\_\_ \_\_\_ Absorber liquor circulation feed and DAS: Check for current calibration and verify operation
- \_\_\_ \_\_\_ Emergency by pass stack cap DAS signal: Check for operation during emergency conditions during quarter
- \_\_\_ \_\_\_ Scale system: Check for current calibration and verify operation
- \_\_\_ \_\_\_ Secondary chamber temperature controller and DAS: Check for current calibration and operation
- \_\_\_ \_\_\_ Ensure that inspections associated with state and local air pollution laws are being completed (i.e., emergency generator log, carbon bed log)

Applicable additional notation for items marked "Fix" above. \_\_\_\_\_

(Note if additional work needs to be done. Use additional pages, if necessary.)

Inspector Name (print)	Inspector Name (sign)	Date of Inspection / Time



**For Month Of:** \_\_\_\_\_

DATE	TIME OF INSPECTION	TEMPERATURES AND SETTINGS AS REQUIRED?	LEAKS OR PROBLEMS WITH RUN-OFF/ RUN-ON CONTROLS?	COMMENTS	INITIALS
1		YES / NO	YES / NO		
2		YES / NO	YES / NO		
3		YES / NO	YES / NO		
4		YES / NO	YES / NO		
5		YES / NO	YES / NO		
6		YES / NO	YES / NO		
7		YES / NO	YES / NO		
8		YES / NO	YES / NO		
9		YES / NO	YES / NO		
10		YES / NO	YES / NO		
11		YES / NO	YES / NO		
12		YES / NO	YES / NO		
13		YES / NO	YES / NO		
14		YES / NO	YES / NO		
15		YES / NO	YES / NO		
16		YES / NO	YES / NO		
17		YES / NO	YES / NO		
18		YES / NO	YES / NO		
19		YES / NO	YES / NO		
20		YES / NO	YES / NO		
21		YES / NO	YES / NO		
22		YES / NO	YES / NO		
23		YES / NO	YES / NO		
24		YES / NO	YES / NO		
25		YES / NO	YES / NO		
26		YES / NO	YES / NO		
27		YES / NO	YES / NO		
28		YES / NO	YES / NO		
29		YES / NO	YES / NO		
30		YES / NO	YES / NO		
31		YES / NO	YES / NO		

Print Name \_\_\_\_\_ Initials \_\_\_\_\_ Signature \_\_\_\_\_

Print Name \_\_\_\_\_ Initials \_\_\_\_\_ Signature \_\_\_\_\_

Print Name \_\_\_\_\_ Initials \_\_\_\_\_ Signature \_\_\_\_\_



# **ATTACHMENT 5**

## **TRAINING**

# V. PERSONNEL TRAINING

## 1.0 INTRODUCTION AND OVERVIEW

This section addresses training requirements for waste management activities at the facility. Training is provided via introductory training programs for new hires and continuing training programs for facility personnel.

Both introductory and continuing training may be provided via online platforms or in classroom settings. Online training sessions are followed by quizzes which require 100% competency to complete.

During the first 180 days of employment, new hires may work under supervision of a trained employee until classroom or online training is completed, unless otherwise noted in Table 1.

Annually, a contingency exercise or drill will be conducted that includes implementation of the Contingency Plan, a written evaluation of employees' response to the drill, and a headcount of employees that participated in the drill.

## 2.0 SCOPE OF TRAINING PROGRAM

### 2.1 Stericycle Employees

Stericycle employees are categorized as: Plant Workers, Maintenance Technicians, Drivers, Supervisors and Managers.

### 2.2 Non Stericycle Employees – Temporary Employment Agency

Temporary employees are utilized on an as-needed basis. Temporary employees are typically hired for shorter periods of time (e.g., less than 6 days or less than 3 months).

### 2.3 Contractors (3<sup>rd</sup> Party)

Contract workers receive training prior to beginning unsupervised on-site work involving waste. A contractor representative may sign an acknowledgment for required Stericycle training prior to beginning on-site work involving waste.

### 2.4 Non-Waste Workers, Visitors, Inspectors, etc

Visitors, inspectors, and non-waste workers are escorted as necessary during the course of their site visit.

Visitors, inspectors, and non-waste workers shall not be directly involved in waste handling or waste management activities.

### **3.0 PERSONNEL TRAINING RECORDS**

Training required by this plan is documented either electronically (in the True North, or equivalent, database) or in manual training record files.

Training records of current personnel must be kept until closure of the facility. Training records on former employees must be kept for at least three years from the date the employee last worked at the facility.

**TABLE 1 – LIST OF TRAINING TOPICS**

(Unless noted, all topics are completed prior to an employee beginning unsupervised, waste-related work and annually thereafter.)

<b>TRAINING TOPIC</b>	<b>Driver</b>	<b>Driver Supervisor/ Manager</b>	<b>Plant Worker</b>	<b>Plant Supervisor/ Manager</b>	<b>Maintenance Technician</b>
Access to Exposure and Medical Records	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>
Bloodborne Pathogens	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>
DOT Hazardous Materials*	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>
Emergency Action Plan	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>
Eye Wash and Emergency Shower			<b>X</b>	<b>X</b>	<b>X</b>
Fire Extinguishers	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>
Hazard Communication	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>
Hazardous Waste Management**			<b>X</b>	<b>X</b>	<b>X</b>
Incinerator Operator***			<b>X</b>	<b>X</b>	<b>X</b>
Personal Protective Equipment – PPE	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>
Radiation Training	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>
Respiratory Protection***	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>
Spill Response	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>
Tub Wash Water Training			<b>X</b>	<b>X</b>	<b>X</b>
Waste Acceptance Protocol	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	

\* Complete Training within 90 Days of Date of Hire

\*\* Where applicable. Training also includes proper handling and emergency procedures appropriate to the type, or types of universal waste handled at the facility

\*\*\* Where applicable

## **ATTACHMENT 6**

### **CONSTRUCTION – FENCING & ACCESS CONTROLS**

## **VI. FACILITY SECURITY**

### **1.0 24-HOUR SURVEILLANCE SYSTEM**

The facility is occupied 24 hours per day during normal operations. The facility is monitored by employees or by using security cameras.

### **2.0 BARRIER**

The internal areas of the facility are to be surrounded by gates and a six-foot, chain-link fence. The main gate is to be electrically controlled and can be opened or closed from the front office or by code. Visitors and trucks are logged by name, and date of entrance.

During non-business hours, the main gate and front door will be locked. Visitors arriving during non-business hours will be able to communicate with the facility (e.g., a plant supervisor) by telephone or radio.

### **3.0 MEANS TO CONTROL ENTRY**

Non-Stericycle vehicles must stop at the gate to sign in and obtain docking or contact information. Trucks will be checked to ensure they are scheduled and then routed to the appropriate area.

Local law enforcement will be called in the event of offensive trespassing.

### **4.0 WARNING SIGNS**

At entry points to the facility, notifications will be posted. Example:  
**UNAUTHORIZED PERSONNEL KEEP OUT. VISITORS MUST SIGN IN AT THE FRONT OFFICE (or FRONT DESK).**

# **ATTACHMENT 7**

## **CONTINGENCY PLAN**

# VII. PREPAREDNESS AND PREVENTION PLAN

## 1.0 INTRODUCTION

This Preparedness and Prevention Plan outlines the equipment and procedures in place at the Stericycle, Inc. facility to prevent and respond to emergencies at the facility. These emergencies include fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents.

## 2.0 EQUIPMENT

### 2.1 Internal Communications

The communications system at the plant includes telephone and audible alarms. Telephones will be available at the front desk and in the employee area (e.g., break room). Personnel will have access to a phone or the internal alarm system during operations.

### 2.2 External Communications

The plant is equipped with a standard telecommunications system that is connected to the public phone system by standard lines. Outside emergency calls can be made by dialing the emergency number 911 using any phone.

### 2.3 Emergency Equipment

Facility communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment, where required, will be tested and maintained as necessary to assure its proper operation in time of emergency.

### 2.4 Spill Control Equipment

Spill kits are located in the dry storage area, incinerator area, and in the Air Pollution Control area. Spill kits vary in content based on storage location.

### 2.5 Personal Protective Equipment (PPE)

Required PPE is made available to employees.

### 2.6 Water for Fire Control

A water system is available for fire control within the facility. The fire water pump system is in full compliance with the requirements of NFPA 20.

### **3.0 TESTING AND MAINTENANCE OF EQUIPMENT**

Emergency eyewashes, showers, fire extinguishers, sumps, spill kits, alarms, and other emergency equipment are inspected regularly. If problems are found, the equipment is tagged out of service and a requisition is placed with maintenance for immediate repair. All equipment will be maintained as necessary to assure its proper operation in time of emergency.

### **4.0 AISLE SPACE REQUIREMENTS**

All areas of the plant are accessible by fire protection equipment around the perimeter plant area. Container placement and aisle space in the waste management area (dry storage area) will be maintained at two feet between the stored containers and any stationary items in the adjacent driveway area in the building.

### **5.0 PREVENTIVE PROCEDURES, STRUCTURES, AND EQUIPMENT**

#### **5.1 Unloading Operations**

The unloading areas for trailers of containers are provided with dock levelers to minimize the potential for mishandling containers due to uneven surfaces or trailer movement. Lighting devices are provided to illuminate the transport vehicle cargo areas during unloading and loading. Containers are off-loaded by handcarts, forklifts, conveyors or by other material handling equipment or means.

#### **5.2 Runoff**

The process operations are contained within facility structure with appropriately designed containment. No waste or process water is expected to migrate beyond these areas. Waste containers are stored in the building or on trailers. No runoff from the waste processing or storage areas is expected. The site drainage is to the southwest.

#### **5.3 Equipment and Power Failure**

Equipment failure is monitored by instrumentation. Detection of an abnormal operating condition or process parameter initiates a waste feed lockout or controlled shutdown of the equipment. In the event of a loss of external power, the facility generator will be started to provide power to critical process equipment.

## **6.0 PREVENTION OF REACTION OF IGNITABLE, REACTIVE AND INCOMPATIBLE WASTES**

Stericycle utilizes a strict waste acceptance policy. See Section I, Waste Management Procedures, and Section III, Waste Acceptance Protocol. Ignitable, reactive or incompatible wastes are not received for treatment. If an ignitable, reactive, or incompatible waste is generated incidental to operations, it will be stored and labeled as required by 40 CFR 262.34(a)(3) until transported to a permitted treatment, storage, and disposal facility. Precautions for segregating incompatible or reactive materials (e.g., strong acids and bases) will be employed, and materials will be safeguarded from flame, spark, or other ignition sources when ignitable.

## **VIII. SPILL PREVENTION CONTROL AND COUNTERMEASURE PLAN**

The Stericycle Tooele County facility is not required to have a Spill Prevention Control and Countermeasures Plan. The plant has an aggregate above-ground storage capacity less than 1,320 gallons.

For requirements, policies and practices applicable to the Stericycle Tooele County facility related to spill prevention, inspection, and spill response, refer to Sections I, IV, V, VII, and IX of this Plan of Operations.

# IX. CONTINGENCY PLAN

## 1.0 EMERGENCY RESPONSE PLAN (ERP)

### *Contact Information*

One or more of the following key management members may be contacted in the event of an emergency:

Brian Kirkwood	Phone # 801-349-9111	Facility Manager
Matt Thompson	Phone # 801-885-7992	Transportation Manager
Dale Rich	Phone # 704-787-3134	Region Operations Director
Alan Inkley	Phone # 801-503-5985	Area Safety Manager
Jay Vance	Phone # 801-971-2042	Environmental Quality Manager

### *Emergency Telephone Numbers*

In case of fire, explosion, personal injury, law enforcement, or any other emergency: **Call 911**

**To outsource clean up and spill reporting to government entities call (or similar contractors):**

Chemtrec for Spills	Hotline:	800-424-9300
ERTS for Spills (per SH-P 002)	Hotline:	800-210-6804

**For Major Medical Waste Spills (not including in-facility spills),** deemed unmanageable, should be reported to the Utah Department of Environmental Quality.

Utah Department of Environmental Quality	Hotline (during business hours)	801-536-0200
	Hotline (after hours for timely response)	801-536-4123

**Medical responses are initiated by the Emergency Coordinator via the following facilities:**

Serious Emergency Care	Mountain West Medical Center 2055 North Main Street Tooele County, UT 84074	911 435-843-3600
	Airmed (Thru Dispatch)	911

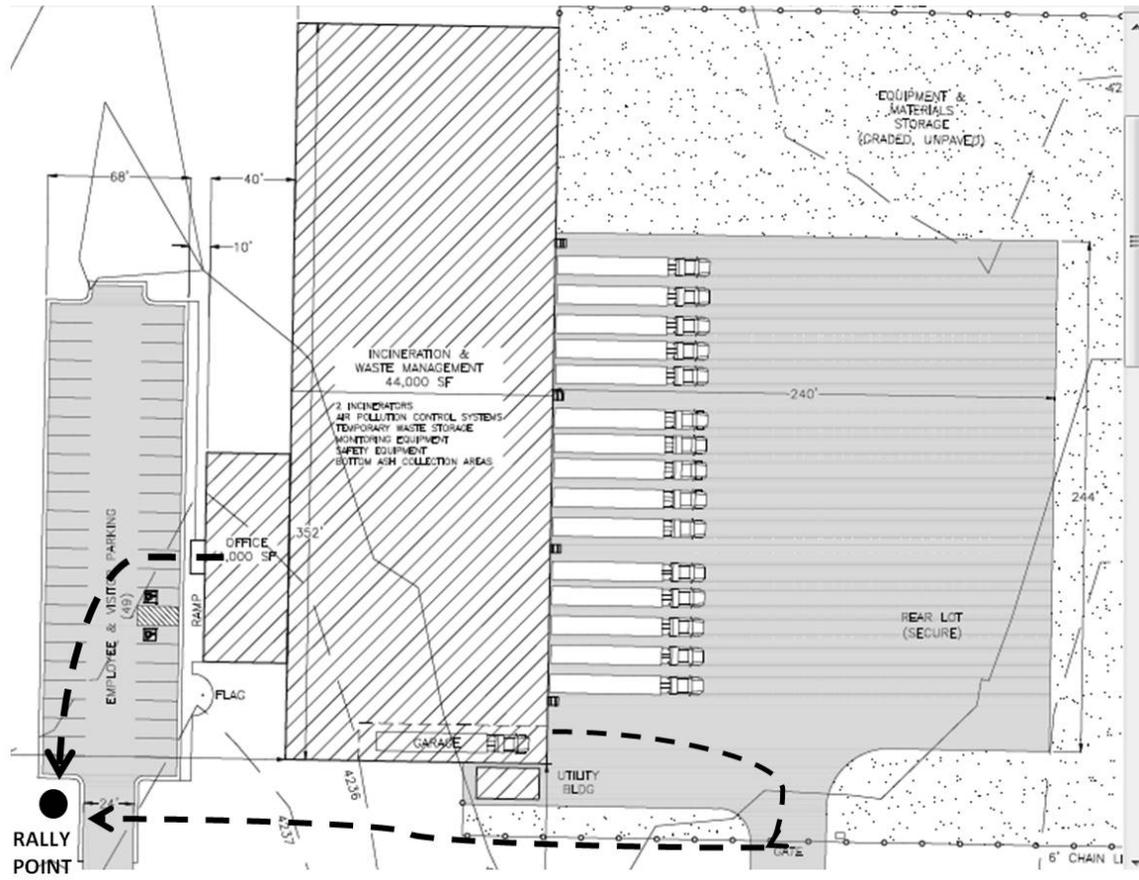
	Mountain West Ambulance Transport, Tooele County, UT	911 (435) 882-1900
Urgent Night/Weekend Care	Urgent Care of Tooele Valley 1244 N. Main, Suite 201 Tooele UT 84074	(435) 882-3968 Mon-Sun 9AM -10PM
Non urgent weekday care	Intermountain InstaCare 777 N Main St., Tooele, Utah 84074	(435) 228-1200 9 AM – 9 PM
	Mountain West Family Practice 2356 North 400 East, Suite 201, Tooele, Utah	(435) 882-2350 M-F 8 AM – 9 PM

## 2.0 EVACUATION PLAN AND INFORMATION

### A. Evacuation Instructions

1. The facility shall be evacuated according to the following steps:
  - a. Announcement of evacuation both by alarm and oral instructions
  - b. Facility personnel will evacuate via the routes and exits per the evacuation plan. (Note: Personnel exiting through the yard gate will use the manual open switch in the event of a loss of power during an evacuation.)
  - c. Personnel will move to the rally point located in the southwest corner of the property
  
2. The Emergency Coordinator Responsibilities:
  - a. The Emergency Coordinator will conduct a roll call. All employees shall be accounted for by each supervisor.
  - b. Emergency Coordinator will use this information to determine missing persons
  - c. Emergency Coordinator will direct effort to account for any missing personnel.
  - d. Emergency Coordinator will share headcount information with emergency responders
  - e. Following an evacuation, personnel will not return to work until the “all clear” is given by the Emergency Coordinator.
  
3. Evacuation Plans/Maps
  - a. Posted in the facility
  - b. Exits and routes are indicated
  - c. Rally point is indicated.
  - d. Other emergency equipment is indicated on the posted maps, e.g. fire extinguishers, eye wash, spill kits, first aid kits, shelters, hydrants, gas and utility shut off

# EVACUATION MAP



## 3.0 CONTINGENCY PLAN

### A. Implementing this Contingency Plan

1. This plan shall be implemented immediately in the event of the following contingencies:
  - a. Fires
  - b. Explosions
  - c. Releases

For purposes of this plan, a release is defined as discharge of materials that have the potential to become a threat to human health or the environment (i.e., hazardous waste or material which, when spilled, becomes hazardous waste) to non-contained, unpaved, or unlined areas outside of the incinerator facility.

2. Contingency Plan Procedure
  - a. Any employee, contractor, or other worker upon discovery of a fire, explosion, or release at the facility shall implement this Contingency Plan
  - b. Following discovery of a fire, explosion or release, the discoverer shall notify an individual on the list of Emergency Coordinators. (See page 21.)
3. Access to Corporate Resources
  - a. All employees shall have access to Stericycle resources for emergency response
4. Arrangements with local response organizations. The following agencies have been contacted:
  - a. North Tooele County Fire District (key entry and/or gate entry access will be arranged, as necessary).
  - b. Tooele County Health Department (annual inspections and permitting)
5. Records of implementation of this Contingency Plan will be kept in the operating record.

### B. Copies of Contingency Plan

1. The Permittee shall keep a copy of this Contingency Plan in the facility office.

### C. Amendment of this Contingency Plan

1. The plan shall be reviewed and amended, as necessary, under any of the following circumstances:
  - a. The permit or facility is modified affecting this Contingency Plan.
  - b. The emergency names (emergency coordinators) or their telephone numbers change.

### D. Emergency Equipment

1. Below lists the facility emergency equipment and provides a brief outline of their capabilities, location in the facility, or use:

Emergency Equipment	Capabilities, Location, or Use	
<b>Eye Wash Shower Stations</b>	Shower and eye wash	One Each in each bay
<b>First Aid Kits</b>	Portable	1-Office area 2-Breakroom
<b>Fire Suppression</b>	Wet system – heat activated	
<b>Fire Extinguishers</b>	“ABC” & 1 “C” -Electrical	Indicated on Evacuation Chart
<b>Evacuation Alarm</b>	Audible	Plant
<b>Spill Kits</b>	For spills of RMW, aqua ammonia, and caustic soda	Kits with absorbent, containment
<b>PPE (Respiratory)</b>	Full Face and Universal Cartridges (includes Ammonia)	Accessible for plant employees
<b>PPE (Hands)</b>	Gloves	Latex for RMW; nitrile for chemicals
<b>PPE (Body)</b>	1. Tyvek with hood, boots, tape 2. Heat Suits: with hood	For use during shutdown maintenance
<b>PPE (Head)</b>	Helmets (hard hats)	In pollution control area

PPE is available in the safety equipment dispensary.

#### **E. Emergency Coordinator Duties**

1. *For imminent or actual emergencies:* Activate internal facility alarm or communication systems, notify and evacuate facility personnel. Notify appropriate response agencies if their help is needed.
2. *For a release, fire, or explosion:* As reasonably possible, identify the character, exact source, amount, and areal extent of any released materials.
  - a. *For threats to human health and/or environment within and/or outside of the facility:* Emergency Coordinator shall respond and report as outlined in this plan.
  - b. *For threats to the larger local area:* If the Emergency Coordinator’s assessment indicates that evacuation of nearby areas may be advisable, the Emergency Coordinator shall immediately notify appropriate authorities. The Emergency Coordinator shall be available to help appropriate officials decide whether local areas should be evacuated.

## 4.0 COORDINATION AGREEMENTS

Arrangements with Emergency Response Contractors:

The facility has agreements with, the following Treatment, Storage, and Disposal Facility:

Clean Harbors Environmental Services, Inc.  
Grassy Mountain  
3 Miles East 7 Miles North of Knolls  
Clive, UT 84029  
(801) 323-8900

## 5.0 REQUIRED REPORTS

As required in the event of an applicable contingency, the facility shall immediately notify the Utah Department of Environmental Quality (Division of Waste Management and Radiation Control).

The report will include:

- Name and telephone number of reporter;
- Name and address of facility;
- Time and type of incident, e.g., discharge, fire;
- Name and quantity of material(s) involved, to the extent available;
- The extent of injuries, if any; and
- The possible hazards to human health or the environment, outside the facility.

The facility will record Contingency Plan incidents in the operating record, as required.

Where required, the facility will submit a written report to the Executive Secretary within 15 days after an incident that required implementation of the Contingency Plan. The report will include:

- Name, address, and telephone number of the owner or operator;
- Name, address, and telephone number of the facility;
- Date, time, and type of incident;
- Name and quantity of material(s) involved;
- The extent of injuries, if any;
- An assessment of actual or potential hazard to health or the environment, and
- Estimated quantity and disposition of recovered material that resulted from the incident.

Contained spills or discharges that do not threaten human health need not be reported.

As required by 40 CFR §302.6, spills on site involving reportable quantities (RQ) will be reported to the National Response Center at 800-424-8802. As required, they will also be reported to the Utah Division of Waste Management and Radiation Control, Tooele County Health Department, and the U.S. EPA, Region VIII.

As required, reports to the Director will be sent to:

Director  
Utah Division of Waste Management and Radiation Control  
P.O. Box 144880  
Salt Lake City, Utah 84114-4880

Required reports to EPA Region VIII will be submitted to:

Regional Administrator  
U.S. EPA - Region 8  
1595 Wynkoop Street  
Denver, CO 80202-1129

Required reports to Tooele County Health Department will be submitted to:

Tooele County Health Department  
151 North Main Street  
Tooele, UT 84074

Immediate reporting of certain events to the Utah Department of Environmental Quality, as outlined in this plan, shall be made to the following:

Utah Division of Waste Management and Radiation Control  
(801) 536-0200 (during office hours); or

Utah Department of Environmental Quality  
(801) 536-4123 (24-hour answering service)

# **ATTACHMENT 8**

## **CLOSURE**

## **XIV. CLOSURE/ FINANCIAL ASSURANCE PLAN**

### **1.0 CLOSURE INTRODUCTION**

This closure plan applies to the Stericycle, Inc. Incineration Facility in Tooele County, Utah. The closure plan was prepared in accordance with the requirements of R315-302-3. The closure plan assumes a worst-case cost scenario which would occur when the maximum waste inventory is stored on-site and a third-party contractor is hired to conduct the closure. The maximum inventory on-site includes all waste items and materials which Stericycle, Inc. may have stored in the facility. The closure plan addresses the shipment offsite for treatment/disposal of the waste items and materials as well as decontamination of the process area and equipment, and all sample analyses.

This section also contains information required under R315-309 regarding financial assurance.

Decontamination of storage areas, process areas, floors, walls, and internal structures will be performed. Decontamination techniques following removal of waste inventory will utilize a combination of flushing and steam cleaning to effectively remove contaminants. Where necessary, the surface areas will be manually scrubbed or steamed and the liquid generated from this process will be collected by vacuum, sumps, and/or pumps to convey the liquid into tanks or other approved containers. The collected liquids residues will then be characterized, and if necessary, sent for treatment/disposal at state and/or EPA approved facilities.

### **2.0 CLOSURE SCHEDULE AND NOTIFICATION OF CLOSURE**

At least 60 days prior to the initiation of closure activities, Stericycle, Inc. will notify the Utah Division of Waste Management and Radiation Control that closure activities will begin on a date specified in the notice.

A detailed schedule identifying the time frame for closing the individual units at the facility will be submitted with the notification of closure. Per R315-302(3)(d), if it is determined that an amendment of the closure plan is required, a closure plan amendment will also be submitted with the notification for closure. If an amendment is submitted, closure activities will not commence until the amendment has been reviewed and approved by the Utah Division of Waste Management and Radiation Control.

### **3.0 HEALTH AND SAFETY**

Those involved in closure activities will follow the facility procedures for the protection of worker health and safety. For the purpose of this closure plan, levels of worker protection are defined as follows:

### Level B Protection

Self-contained breathing apparatus  
Air lines and tanks  
Steel-toe, leather boots  
Boot covers  
Tyvek coveralls  
Chemically resistant gloves  
Hardhat  
Eye protection

### Level C Protection

Air purifying respirator and cartridges  
Steel-toe, leather boots  
Boot covers  
Tyvek or cotton coveralls  
Chemically resistant gloves  
Hardhat  
Eye protection

Level D protection includes the standard health and safety equipment for construction activities.

## **4.0 CLEANUP LEVEL**

Stericycle, Inc. intends to decontaminate all the process equipment to non-contaminated levels as required by the State of Utah at the time of facility closure.

All areas of the incineration facility including the incinerator, gas cleaning train and storage areas, concrete floors, and building walls are to be decontaminated to the levels required by the State of Utah at the time of closure.

## **5.0 START OF CLOSURE**

Closure of the facility will begin on the closure date specified in the notification letter to the State of Utah. An early step in closure of the facility will be removal of waste inventory. Before final decontamination of a specific unit begins, all waste will be incinerated on-site, and/or sent to an approved medical waste treatment facility.

## **6.0 CLOSURE PROCEDURES**

The closure/decontamination procedures shall include, but not necessarily be limited to, the following activities for each type of process equipment:

### **6.1 Shutdown and Cleaning of the Incinerator**

All incoming waste deliveries will be terminated. Waste inventories will be processed and/or sent to an approved medical waste facility. After the final charge of the incinerator, the unit will continue operating until the waste inside the primary chamber has combusted for a minimum of 2 hours. The APC equipment will continue operating until the combustion process has been completed.

When the incinerator has had the opportunity to cool down, the incinerator will be locked out for final cleaning of the primary and secondary chambers.

Any bottom ash in the quench tank will be removed. The bottom ash will be disposed of in an approved disposal facility following applicable waste characterization requirements.

## **6.2 Preparing the Incinerator for Decommissioning**

Once the final clean out has occurred, the incinerator will be disconnected from the gas feed system. The hydraulic systems will be cycled to place the equipment in the proper position and the hydraulics will be dismantled. The hydraulic oils will be collected and disposed/recycled appropriately. The air systems will be disconnected. The electrical systems will be disconnected rendering the incinerator and APC equipment inoperable.

## **6.3 Cleaning and Decommissioning the APC**

A third-party company permitted to perform such operations will clean the APC equipment. The contractor will provide a certification that the equipment has been properly decontaminated and all residual materials have been disposed of in accordance with applicable regulations.

The Filter Fabric Bag House will be pulsed to remove as much fly ash as possible. The baghouse hopper will be emptied with the resulting fly ash being treated and disposed of by an EPA approved TSDF. All electrical equipment for operation of the incinerator will be de-energized and locked out.

Once the APC equipment has been decontaminated, waste disposal will occur.

## **6.4 Decommissioning the Incinerator**

- Usable parts such as burners, blowers, control systems, thermocouples, etc. may be removed from the incinerator prior to dismantling the primary and secondary chambers.
- The stacks and associated breeching will be lowered to the ground with a crane or alternative equipment.
- Depending upon the final disposal options, the refractory will be removed and characterized. Removed scrap metal may be sent to a recycler.
- The charging platform, hydraulic cylinders, and charging door will be separated from the primary chamber.
- The ash plows in the primary chamber will be removed and recycled or disposed of.
- The refractory in the primary chamber will be removed and tested as described above.
- The ash dragon will be removed and reused or recycled.

- The quench water will be removed, characterized and disposed of accordingly.

### **6.5 Area Cleaning**

The concrete pad and surrounding area will be cleaned.

Gas lines and electrical lines to the incinerator will be removed back to the gas meter and the electrical panel.

Residual materials such as sodium bicarbonate, hydraulic fluids, caustic soda, etc. will be utilized or disposed of at an approved facility.

## **7.0 SAMPLING AND ANALYSIS**

Sampling and analytical testing during the closure performance period shall conform to applicable requirements.

## **8.0 CLOSURE COST ESTIMATES**

The total cost to close the facility using third party cost in 2015 dollars is estimated to be \$500,000.

## **9.0 POST-CLOSURE PLAN**

As discussed above, Stericycle, Inc. will fully decontaminate all waste management units of the facility to non-contaminated status except where noted. Contaminated items that cannot be decontaminated will be disposed of at an approved hazardous waste or medical waste facility as appropriate. It is therefore not anticipated that any post-closure monitoring of the site will be required. In addition, this site is not used for land-based or water-based disposal, as such, a post-closure plan is not required under Utah Department of Environmental Quality regulation R315-302-3(1).

## **10.0 CLOSURE COSTS AND FINANCIAL ASSURANCE**

To satisfy financial assurance closure cost requirements, Stericycle, Inc will establish financial assurance in accordance with R315-309. The mechanism for compliance with financial assurance requirements will be selected consistent with the options presented in R315-309 and the relevant proof will be submitted prior to the facility receiving waste.

## **11.0 FINAL INSPECTION BY REGULATOR AGENCIES**

A final inspection will be scheduled with regulatory agencies upon final closure of the facility. Upon completion of closure activities, a professional engineer registered in the state of Utah will submit certification that the facility was closed in accordance with the closure plan.

## **ATTACHMENT 9**

### **RADIATION PROTOCOLS**



## **RADIATION SCREENING PROTOCOL – Tooele County, UT**

Federal, state and local laws govern the safe handling and disposal of radioactive materials, and it is the intent of Stericycle, Inc., to fully comply with these laws.

It is the policy of Stericycle, Inc., to prohibit the treatment or disposal of medical waste that emits radiation. The procedures associated with this policy are outlined below:

### **Screening**

Stericycle, Inc. will not accept waste for disposal when radiation is detected as outlined in this protocol. All waste containers delivered to the Stericycle, Inc., treatment facility, will be scanned for radiation.

1. Radiation detection (e.g., meters and probes) shall be used to detect radioactivity in each package as part of the weighing and scanning process for incoming waste. If the readout from the radiation detector shows radiation levels greater than 30-36  $\mu\text{R/hr}$  (a multiple of background for a single probe meter), the material will be rejected for treatment, and the facility manager (or designee) will be notified, verbally and/or by log book notation.
2. Containers with radiation lower than the 30-36  $\mu\text{R/hr}$  limit (for a single probe meter) may be accepted for treatment in accordance with normal procedures.

The following procedures will be utilized for waste with radiation levels above these limits:

### **1. Radiation level between the screening limit and 500 $\mu\text{R/hr}$**

- a) Record the date, generator name, and initial radiation reading (in  $\mu\text{R/hr}$ ) from the radiation detector on the appropriate Radiation Tracking Document.
- b) Ensure that the container is strong and that there will be no leakage of the radioactive material during conditions normally incident to management and transportation.
  - i) Label or mark the outside of the container with the word "Radioactive" or otherwise to communicate that the container is not acceptable for processing.
  - ii) Place container in the Non-conforming Waste Storage Area (in dry storage adjacent to the Haz Waste storage area)
- c) Storage of waste with radioactivity for decay-in-storage is not allowed (per Operations Plan).
- d) The generator or generator's representative is contacted, and given the reason for rejecting the material. The generator must arrange transport of the radioactive container back to generator site or to an appropriate location designated by the generator.

Note: State regulations may require the use of a licensed low-level radioactive waste transporter. As applicable, each shipment that is transported to the generator or sent to a generator-designated location must be properly labeled, placarded, and accompanied by a notice, which contains the following information:

- Name of the consignor or consignee



- The following statement: "This package conforms to the condition and limitations specified in 49 CFR 173.421 for exempted radioactive material, limited quantity, NOS, UN2910.
- e) Upon rejection of material for radiation, the generator or generator's representative will be reminded and/or informed of the policy of Stericycle, Inc. on not accepting waste with radioactive materials.

## **2. Level of Radiation Greater than 500 uR/hr**

In addition to the requirements in 1., above:

Immediately notify the facility manager (or designee). Isolate and mark the container as radioactive in a storage area within the facility and away from employee activity. Isolate the area (e.g., with a barrier tape) at the point where radiation levels equal background.

- a) The generator and transporter are contacted immediately and are given the reason for rejecting the material. The generator must arrange for transportation back to their site or an alternative location. Stericycle, Inc. vehicles are not to be used to transport waste that are screened at or above the 500  $\mu$ R/hr limit.
- b) Facility will complete the appropriate radiation-tracking log.

## **General Requirements**

Waste will only be stored in those situations where the facility is awaiting communication and transportation back to a generator's facility or along to an appropriate disposal and/or management location.

If, while awaiting arrangements for proper transportation back to the generator or to the generator's designated facility, a scan of the container indicates that its contents are below the alarm set point (30-36  $\mu$ R per hour), the container may be processed, and its disposition noted on the radiation tracking document.

Historically, in the vast majority of instances, due to the medical use of radioactive materials that decay relatively quickly, radiation in waste containers that have initial radiation above the screening limits are seen to decay to acceptable levels prior to completion of the arrangements with a generator that are outlined above. This does not mean that Stericycle may utilize decay in storage. (See 2.c, above.) Radiation re-testing may be done the following business day prior to contacting a generator. Additionally, containers with initially high radiation detected may be re-tested for radiation at any time.

## **3. Training and Informing Employees**

Employees at Stericycle, Inc. will be trained in the specifics of radiation protocol.



## **RADIATION SCREENING PROTOCOL**

### **(ATTACHMENT)**

Radiation Screening Unit Check Protocol:

1. Retrieve check source (can) from its designated radioactive material storage area.
2. Place check source near the radiation detector(s) installed at the weigh station(s).
3. Ensure that each detector's audible alarm sounds and its light illuminates when the meter is above 30-36  $\mu\text{R/hr}$  (for a single-probe meter) or twice the upper limit of background radiation.
4. Return check source to its designated radioactive material storage area.
5. Record check in the Waste Acceptance Protocol log book on the corresponding Radiation Screening Unit Check form. Note the following:
  - a. Check time
  - b. Source used (i.e., can)
  - c. Alarm light functioning (Yes or No)
  - d. Initials

Note: Comments may also be provided on the form





RADIATION TRACKING DOCUMENT

(Radiation level greater than 500  $\mu$ R/hr)

DATE RECEIVED	GENERATOR NAME	Initial Test: RADIATION LEVEL	DATE TRANSPORTED BACK TO GENERATOR OR TO OFF-SITE FACILITY	COMMENTS

